

Application No.: 10/809,737
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AUG 23 2006

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REMARKS***Status of the Application***

Claims 1-7, 9, 10, 14-17, and 19-21 are pending. The pending claims are objected to on grounds of cited informalities. The pending claims stand rejected under 35 U.S.C. § 102.

Amendments to the Claims

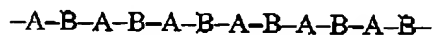
Claims 1 and 21 are being amended to address the Examiner's objections to those claims.

Claim Objections

The Examiner has objected to certain informalities in claims 1 and 21. Claim 1, line 10 is amended to delete --, Ia,-- since Formula I(a) does not have any R groups. Applicants respectfully suggest that this amendment sufficiently addresses the Examiner's objection as set forth in paragraph 3(a) of the Office Action. By making this amendment, Applicants have retained the definitions of R in Formulas I and III as being able to form a ring if two R groups are adjacent. The same amendment is made in Claim 21, line 11 for the same reasons and to address the objection raised in paragraph 3(c) of the Office Action. Claim 1, line 29 is amended to add "with the proviso that" as required in paragraph 3(b) of the Office Action. The objection in paragraph 3(d) is not understood, and therefore, no amendment is being made in this submission.

Claim Rejections – 35 U.S.C. § 102**Kim '864**

Claims 1-7, 9-10, 14-17 and 19-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al., U.S. Patent No. 5,876,864. Applicants respectfully traverse this rejection. To anticipate claims under review, the single prior art reference must disclose each and every limitation in the claims, in the order therein presented, and must enable the claimed invention. Kim '864 discloses a polymer described in the Abstract as a fluorene-based alternating polymer. An alternating polymer regularly repeats in the following manner, where A and B represent the repeating comonomers, both of which are fluorene-based and derived from formula (I):



The present claims are directed to a copolymer having at least one fluorene-based comonomer having Formula I or Formula I(a) and at least one comonomer having a 6-membered heteroaromatic ring of Formula III (please see, e.g., claim 1). In Kim '864, as shown in formula (I) the basic structural repeat unit (SRU) or backbone of the alternating polymer

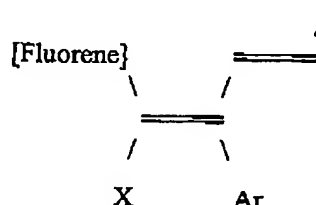
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includes --Ar-- where Ar represents substituted or unsubstituted phenyl and is illustrated in the formulae shown at Col. 4, line 50 to Col. 7, line 5, as well as the acetylene group on each end of the SRU. Kim '864 does not disclose a non-fluorene-based comonomer or a polymer other than a strictly alternating pattern as depicted above. Table 1, Cols. 15-16 presents the chemical structures of polymers from Kim's working examples. All contain acetylene groups in the SRU absent from any claimed copolymer and none depict the pyridine comonomer required in the claims under review. In addition, Kim '864 does not show any substitution on the phenyl rings of the fluorene comonomer, as do the claims under review. For these reasons, Kim '864 does not anticipate the pending claims. Applicants respectfully request that this rejection be withdrawn.

Kim '974

Claims 1-2, 4-7, 9-10, 14-17, and 19-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al., U.S. Patent No. 5,807,974. This rejection is also respectfully traversed. Kim '974 also discloses a fluorene-based alternating copolymer (Abstract). Formula (I) in Kim '974 depicts an SRU that contains a fluorene group and a side chain,



Again, there is no equivalent side chain in any of the present claims. Like Kim '864, Kim '974 lacks any disclosure of a pyridine-based comonomer, which, as noted above, is required in the present claims. Kim '974 does disclose a pyridine unit, Col. 6, line 5, but this unit is Ar in the schematic shown above, and is not a comonomer but rather a pendant group on the basic SRU of the alternating polymer. For these reasons, Kim '974 does not anticipate the pending claims. Applicants respectfully request that this rejection be withdrawn.

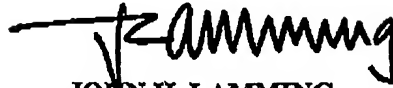
Conclusion

It is respectfully submitted that none of the art of record anticipates the invention as now claimed. The above amendments are made to put the claims into condition for allowance. A Notice of Allowability is requested respectfully.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "J. Lamming", with a long horizontal stroke extending to the left.

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Dated: August 23, 2006